

Title (en)
WIRELESS CHARGING DEVICE

Title (de)
DRAHTLOSE LADEVORRICHTUNG

Title (fr)
DISPOSITIF DE CHARGE SANS FIL

Publication
EP 3806277 A4 20210602 (EN)

Application
EP 19863297 A 20190917

Priority
• KR 20180111794 A 20180918
• KR 2019011977 W 20190917

Abstract (en)
[origin: EP3806277A1] A wireless charging device according to various embodiments of the present disclosure comprises: a wireless charging device body; and a wireless power transmitting device disposed on the wireless charging device body so as to face a wireless power receiving device provided on an external electronic device. The wireless power transmitting device comprises at least one transmitting coil and a transmitting magnetic body configured to surround the at least one transmitting coil and to face a receiving magnetic body provided on the wireless power receiving device. The inner peripheral surface of the wireless power transmitting device faces the inner surface of the wireless charging device body. When the wireless charging device body and the external electronic device are coupled, the outer peripheral surface of the wireless power receiving device and the inner peripheral surface of the wireless power transmitting device face each other. The transmitting magnetic body is formed in a ring structure, at least a part of which is open. One surface of the open ring structure of the transmitting magnetic body is disposed on at least a part of the inner surface of the wireless charging device body. One surface of the ring structure of the transmitting magnetic body faces the receiving magnetic body. When an electric current is applied to the transmitting coil, an electromagnetic field for inducing electric power in the receiving coil may be generated in the transmitting magnetic body.

IPC 8 full level
H01F 38/14 (2006.01); **H02J 7/00** (2006.01); **H02J 50/00** (2016.01); **H04B 5/00** (2006.01)

CPC (source: EP KR US)
H01F 38/14 (2013.01 - EP US); **H02J 7/0044** (2013.01 - EP US); **H02J 50/005** (2020.01 - EP KR US); **H02J 50/10** (2016.02 - KR US); **H02J 50/402** (2020.01 - US); **H04B 5/26** (2024.01 - EP KR US); **H04B 5/79** (2024.01 - EP KR US); **H02J 50/80** (2016.02 - US); **H02J 2310/22** (2020.01 - KR US)

Citation (search report)
• [XAYI] US 2016181821 A1 20160623 - XU JUN [CN], et al
• [Y] CN 102360870 A 20120222 - ZHEJIANG IND POLYTECHNIC COLLEGE
• See also references of WO 2020060142A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3806277 A1 20210414; **EP 3806277 A4 20210602**; CN 112640252 A 20210409; KR 102602642 B1 20231116; KR 20200032576 A 20200326; US 2022045549 A1 20220210; WO 2020060142 A1 20200326

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EP 19863297 A 20190917; CN 201980057555 A 20190917; KR 20180111794 A 20180918; KR 2019011977 W 20190917; US 201917276743 A 20190917